

The Importance of Incorporating Workflow in IT Service Management Tools

By:

Sakoya Bryant

Certified Public Manager Program Project
2021

Table of Contents

	Page
I. Abstract	3
II. Introduction	4
III. Research and Data Analysis	6
IV. Literature Review	10
V. Conclusion	11
VI. Bibliography	14
VII. Appendix	15

Abstract

The purpose of this paper is to discuss the effectiveness of automating work processes in an existing IT Service Management Tool. There has been extensive research that notes the benefits of incorporating workflow in service management tools. The Department of Administration's Division of Technology Operations (DTO) currently utilizes ServiceNow, a platform that helps organizations manage workflows for enterprise operations. Because DTO provides enterprise IT services to state agencies, optimum use of this software is ideal and critical to the overall efficiency of the division as an IT service provider. In addressing this topic, research will show that agency staff would greatly benefit in terms of efficiency and effectiveness by incorporating process automation in the existing service management platform.

Introduction

As the lead for the Agency Relationship Management (ARM) team for the Division of Program Management, I am tasked with ensuring that the team develops and maintains partnerships with agencies statewide. Agency Relationship Management is a continuous effort where we must remain engaged with our agency partners to ensure that their IT needs are being met. As part of this engagement, we are made aware of service requests and issues that often times require some level of remediation. We also serve as point of escalation for agencies and work to promptly resolve any reported issues. In doing this work, the ARM team has identified the need for automation of multiple internal processes which will ensure that agency requests are completed in a timely manner and thus improve service delivery to our agency partners.

Problem Statement

The automation of work tasks are currently limited in the organization's IT Service Management tool, ServiceNow. Agency staff, both internal and external to the organization would greatly benefit from the automation of work processes in ServiceNow. This paper will address the importance of incorporating workflow through a variety of literary sources in addition to insight from existing staff.

Data Collection Approach

The Service Area Managers are responsible for ensuring the work related to their service area is completed. There are a number of Service Area Managers within the organization and each are responsible for a different service. That responsibility includes implementation and maintenance of that particular service. To better understand these work efforts, documents such as diagrams and workflows that details processes for completing service requests and troubleshooting efforts for service-related issues were reviewed. A report of all the IT service

areas that are currently utilizing the ServiceNow ticketing system is included in this paper for reference (Table 1).

	Table 1
Assignment Groups in ServiceNow	Assignment Groups in ServiceNow
Business Management	DIS Infrastructure
Communications	
Database Support	
DIS Enterprise Technology	
DIS Firewall/VPN	
DIS Information Security Systems & Processes	

In addition to work process documentation, interviews with key staff were also conducted. These interview sessions were held with one or more staff from the agency's Leadership Management team, Service Desk and Network Services Management teams. These interviews included discussions on the impact of automating current work process and all considerations that must be given to ensure proper implementation. These discussions will note feedback regarding any immediate staffing needs such as training and/or additional resources that need to be provided to the IT Service Desk or organization as a whole. In addition to service management impacts, there are also budgetary impacts that must also be considered for the initial and ongoing project costs. The organization also has to consider the required time needed for implementation. Most of this will be based on the organizations current state such as ensuring that workflow process in all areas are documented and most importantly, the initiative has been vetted from the organization's leadership. A number of literary sources were also reviewed regarding the implementation and effectiveness of workflow management in the workplace.

The execution of workflows has to be implemented by the leadership for DTO. As the lead for the ARM team, I am able to provide information and any assistance needed to support

the organization with this effort. As DTO continues to expand its shared services offerings, there is a great opportunity to proceed with efforts to automate current work processes. This is a significant change to the organization that will greatly benefit both internal staff that are involved in the implementation process and agencies utilizing DTO services.

Research – What is Workflow Automation?

Workflow automation refers to the design, execution, and automation of processes based on tasks that are routed between people and systems. Workflow is used to improve everyday business processes by eliminating the need for manual work to be performed. Through workflow automation, staff are able to focus on completing actual work efforts instead of the processes that supports these functions. There are some key steps to implement workflow automation. These steps includes documenting current processes, incorporating the needs of those involved in the processes, selecting a software solution that best fits the organization, establishing Key Performance Indicators (KPIs) as a performance measure, and developing a plan for initial and ongoing test efforts.

To effectively document current processes, an organization needs to ensure that all of the associated resources are engaged and a combination of flowcharts and/or diagrams are used to identify the current processes. This exercise is important, because it helps an organization determine which element of the process can be automated or in some cases eliminated altogether. Once the process has been documented, a collective decision can be made on the software that would best fit the needs of the organization. Another important part of the process is to develop KPIs or a way to measure performance. KPIs are split into two categories: quantitative and qualitative. Quantitative refers to the actual data, primarily involving numbers and attributes that can be quantified. While qualitative involves values that are descriptive and derived from

personal feelings or opinions. Once the metrics have been determined, organizations can conduct tracking efforts in their software tool. With utilization of the software, there also has to be a plan to test the workflow both at the initial implementation phase and ongoing once deployed.

Why is Workflow Automation Important?

Workflows can help streamline work tasks, especially those that are repeatable. Through the automation process, errors are minimized and overall efficiency is increased. This improved efficiency positively impacts the morale of internal staff in addition to those that work directly within the organization. Additionally, workflow automation provides a number of benefits.

These benefits include the following: 1) efficiency in the handling of work requests and projects, 2) improved communication efforts, and 3) availability of reporting capabilities. Most organizations have repeatable processes that must be completed in order for specific work tasks to be performed. Through automation, business rules are defined systematically for these repeatable processes. This provides assurance to the organization's resources that these measures have been completed and attention can be given to the actual work efforts. This ensures that prompt and efficient service is delivered each time in response to various service requests. Communications within the organization will improve because processes are automated. The information or variables needed to complete work will be incorporated into the system and thus delays to verify and/or retrieve additional information will be minimized substantially. Additionally, important reporting capabilities will be made available to the organization. This will be quite useful to staff as the performance metrics are reviewed and analyzed. This will also help assist staff with developing and/or modifying existing Service Level Agreements (SLAs) with various entities in which they are engaged.

Incorporating workflow into existing service management platforms is essential to an organization's overall performance of work efforts. Workflow automation provides for processes to be completed systematically and allows staff to focus on the delivery of the actual work. The importance of its inclusion is critical to the organization overall and should be properly executed.

Workflow Automation – Current State

DTO is a division of the Office of Information and Technology Services (OTIS) and is tasked with providing secure, reliable information technology (IT) services to agencies throughout the state.

There are two main ways that agencies can initiate a service request or advise of an issue with existing services: 1) contact the DTO Service Desk and/or 2) contact their Agency Relationship Manager (ARM). With either option, a Service Desk ticket will be generated and routed to the appropriate staff to review and complete the work request. Workflow is currently limited in the Division's service management tool. If an incoming request involves multiple resources from different service areas, separate tickets will have to be generated and routed to those areas noting the associated tasks that are to be completed. With the implementation of workflow, the need to generate multiple tickets for one request would be eliminated. Because workflow automation is so limited, the intake process is critical. The Service Desk staff must be sure to capture specific details at intake to ensure these requests are routed to the appropriate service areas and any associated tickets are generated. There are a number of assignment groups within the ticketing tool that may be assigned tickets during the intake process. If a request has work tasks that involves multiple service areas, the Service Desk has to be sure to assign the associated ticket to those resources.

Because workflow automation is so limited, technical resources have found ways to communicate at various times outside of the ticketing tool. As noted previously, communication efforts would improve drastically as there wouldn't be a need in most cases to communicate regarding service requests outside of the existing platform.

As an enterprise IT service provider, DTO's Service Desk is essentially the hub for incoming requests. In conducting the interview process and review of the Division's current state with regards to workflow automation, it was critical to interview specific staff within the organization. Management for the Service Desk, Network Services, and Leadership participated in the interviews and were asked questions regarding their overall thoughts on creating workflow/integrating workflow into the Division's ticketing tool, ServiceNow. The participants were also asked about current staffing and whether the Division's current resources could provide ongoing support once workflow automation was implemented. There were questions regarding the need for training and if a particular cadence should be established for staff. Because the interviewees have varying roles within the organization, questions were posed regarding tenure in state government and past workflow implementation efforts in addition to any lessons learned from those attempts. Lastly, the interviewees were asked their thoughts on the issues that implementing workflow would solve.

The responses received overall was quite similar, though each individual provided insight from various points of view, all which were relevant, but just provided from a different perspective. Each interviewee has been in state government for a significant period of time with tenure ranging from 13 – 26 years. The majority of those years were spent within the existing organization. Overall, the interviewees' thoughts on workflow automation was positive and they agreed that implementation would be a major undertaking for the agency, but the rewards far exceeds the work required to do so. During each interview session, the participants agreed that

workflow automation would provide more efficiency and be beneficial to various processes within the organization such as onboarding efforts for new staff. There were concerns about the lack of staffing resources not just within DTO, but with surrounding service areas that will also be a part of the workflow automation process. It was noted that with current resources, it will be a challenge to provide ongoing support once workflow automation is implemented. A critical staffing need for both implementation and ongoing support is a process writer and/or business analyst. Even with the engagement of a third-party to assist with implementation efforts, a business analyst would be vital to the organization in providing any process documentation needs for current work tasks in addition to those associated with future service offerings. It was discovered during the interview process that workflow automation was attempted previously, but there were gaps such as those being addressed that prevented the plan from being fully executed. The participants agreed that training was important, especially during the initial engagement of staff in efforts to implement workflow automation. Though it is critical to have executive buy-in to initiate this effort, staff engagement is also vital to the implementation process. With regards to time to fully implement, this will be based on procurement efforts and whether further process documentation is needed. A definitive timeframe could not be provided without further analysis, but several months is likely.

In addition to the internal research and interviews with internal staff, other literary works were reviewed on this topic pertaining to the importance of workflow automation, particularly at the enterprise level of organizations.

Literature Review

The impact that workflow automation has had on various organizations is notable. Several authors have investigated the effects of automating work processes at the enterprise level

of organizations, not just within the IT realm, but in other areas as well, such as Healthcare. Automation of workflow processes is critical in healthcare, particularly since most staff are primarily dealing with emergency situations where there is little room for delays or errors. Health IT, used well, can improve efficiency and organizational workflow. In health care, redundant information is often created and stored. As a result, care providers spend a great deal of time reconciling information from various sources. Integrating health IT with the workflow of various departments can help to reduce this redundancy (Cain & Haque, 2008).

As a group of authors researching the effect of workflow automation in every business area, it has been noted that the intent of all organizations is to be efficient and consistent in their delivery. In every business office there are procedures that are set up to be followed with the intent of providing increased efficiency, consistency, and quality. The concepts of process engineering and workflows embody the ideas of controlling and coordinating complex activities and interactions among individuals and software components. The archived objective is an improved quality and efficiency of computerized work (Cichocki, Rusinkiewicz, Woelk, 1998). Research across the board on the importance of workflow automation notes that organizations have these same goals in mind, to be efficient, consistent, and provide quality to the workplace and those that they serve.

There has been a consistent message in the benefits of workflow automation. Workflow benefits include improving the efficiency of the work and the resulting elimination of unnecessary steps (Mohammed & Talab, 2013).

Conclusion

There is no debating that workflow automation is important. The importance of incorporating workflow in IT Service Management tools is critical to the efficiency of business

processes. Though to properly implement workflow automation, there are some key components that an organization has to keep in mind. First, there has to be executive buy-in before any of the necessary steps to automate processes can be completed. The next step is also critical and that includes the documentation of work processes. Organizations have to ensure that their business processes are documented as automation cannot occur until this is completed. Additionally, resource concerns must be addressed even if its through a third-party or the hiring of additional staff. KPIs or performance measures must be incorporated into the workflow automation processes so that organizations can measure their performance once the solution is fully implemented. KPIs also provides the ability to generate reports that can be referenced in contractual agreements with outside entities.

In DTO's case, Service Level Agreements (SLAs) can be incorporated into the contractual documents that the Division has in place with other agencies for their utilization of services. Lastly, there has to be a measure to evaluate the effectiveness of the organization once workflow automation is fully implemented. The evaluation effort can include both quantitative and qualitative measures from the various data reports in the organization's IT Service Management tool in addition to agency surveys to measure satisfaction. The distribution and compilation of the survey data can also be automated for review and evaluation by internal staff.

Through this research, it is clear that the Division recognizes the importance of incorporating workflow into it's existing IT Service Management tool. There have been other Division areas such as the Division of Program Management that has worked to assist the organization in automating their contract management process. This work effort included multiple collaborative sessions with DTO and other service areas to document current work processes, most of which were being completed manually (Appendix 1). Once documented, a third-party was engaged to automate those processes systematically. Several training sessions

with staff were held prior to the system going into production. The overall experience with this project showed the importance of workflow automation and the efficiency it provides to the enterprise.

Bibliography

- Andrzej Cichocki, Marek Rusinkiewicz, Darrell Woelk: *Workflow and Process Automation Concepts and Technology*, Kluwer Academic Publishers, ISBN 0-7923-8099-1
- "Work Flow Automation". Archived from the original on 2013-09-07. *Retrieved 31 March 2015*.
- James G. Kobielski: *Workflow Strategies*, Hungry Minds, ISBN 0-7645-3012-
- Hughes RG, editor Rockville (MD): *Agency for Healthcare Research and Quality* (US); 2008 Apr.
- Faisal Mohammed Nafie, Samani A. Taleb: *The Role of Processes Re-Engineering and Workflow In The Transformation of E-Government*; 2013 Oct.

Appendix 1

Draft Contract Approval Process

